

## Summary of Findings – Value Added Grant VA99-208

Objective 1 – To update and expand the **International Agri-Awareness Curriculum** which was developed in the late 1980's and endorsed by then Superintendent of Public Instruction H. Dean Evans.

Content was expanded from corn, soybeans and hogs to include wheat, feed grains (corn, oats, barley and sorghum), soybeans, tobacco, fruits and vegetables, dairy products, beef, pork, poultry including turkey and duck, and grain seeds. Statistical data for exports was obtained from the Indiana Ag Statistics Service, United States Department of Agriculture and Purdue Agricultural Economics Department.

Draft curriculum and activities were piloted tested by 6 teachers / classrooms within MSD Wayne Township. Number of 4<sup>th</sup> grade students participating in the pilot was 125. All classrooms were inclusion classes where there was a mix of students with varying academic abilities in addition to ethnic, social and economic diversity. Teacher feedback included concerns about the students not being able to relate to the commodities being discussed, the students did not know enough about agriculture production for them to understand the curricula, the concept of export market was too advanced for 4<sup>th</sup> grade students. Teacher recommendations included using the curricula with students in a rural area where they are more familiar with agricultural commodities and re-writing the curricula for middle school or high school level when the students are studying economics / world trade.

Objective 2 – To correlate existing curricula on agricultural biotechnology with the Indiana Science Proficiency Curriculum Guide (revised August 1997) and to promote these curricula to middle and high school biology teachers who may have limited prior knowledge of agriculture and biotechnology.

Existing curricula on agricultural biotechnology were correlated to the 1997 Indiana Proficiencies. The correlations were direct mail marketed to middle and high school biology teachers and curriculum directors in all 11 Marion County public school corporations in addition to private and parochial schools.

I had conversations with personnel at several parochial schools who were not interested in using the curricula because of religious concerns. The information gained through these conversations helped me better understand the religious, ethical and moral concerns which were associated with teaching biotechnology at the middle and high school level. I also talked with several public school curriculum directors who echoed these concerns.

Three high school science teachers in three different public school corporations who taught advanced biology classes in genetics did use the curricula and were very excited to have these resources available them. In most cases the students in these classes were excelling academically as admission into this class required an A or B in pre-requisite

biology courses. The number of students reached was approximately 100. Student feedback was very good as they enjoyed the hands-on nature of the activities.

Teacher concerns about the correlation included its limited usefulness as the Department of Education was re-writing the proficiencies. Additionally, there were limited advanced courses in genetics offered at the high school level as identified by the survey of the eleven Marion County public school corporations. For example, several of the school corporations do not offer advanced biology courses, rather the students, after meeting their CORE 40 requirements, enroll in IUPUI biology courses and gain college credit while still in high school.

Objective 3 – To develop a computer based presentation applicable for one on one and small group teacher meetings to promote and demonstrate the curricula.

Power-point presentation was developed which gave an overview of agriculture literacy curriculum available through Purdue Extension – Marion County. Presentation was direct mail marketed to elementary, middle school, and high school principals in all 11 Marion County public school corporations in addition to private and parochial schools as a presentation for teacher meetings and in-service days. Response was very minimal. Several presentations were scheduled then cancelled by the principals because of mandated teacher in-service on Public Law 221.

Presentation was marketed to teachers through newsletters, emails, and with other programs. Ten trainings were scheduled and presented to a total audience of 23 teachers. Teacher response to the curricula was varied. The “selling point” of the curricula being correlated to the Indiana proficiencies wasn’t effective because the Department of Education was re-writing the proficiencies. Teacher’s personal interest in agriculture within Marion County tends to be low except for the teachers who had grown up on an active farm themselves. These teachers were very excited about the curricula available and several borrowed copies or then purchased copies for themselves.